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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,367	12/19/2000	David G. Steer	71493-879	3293
7380	7590	07/11/2005	EXAMINER	
SMART & BIGGAR/FETHERSTONHAUGH & CO. P.O. BOX 2999, STATION D 900-55 METCALFE STREET OTTAWA, ON K1P5Y6 CANADA			BLOUNT, STEVEN	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 07/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/739,367

Applicant(s)

STEER ET AL.

Examiner

Steven Blount

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 27 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 27 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections --35 USC § 103

1. The previous indication of the allowability of claims 1 – 27 and 29 is withdrawn in view of the new grounds of rejection below. The examiner regrets any inconvenience that this may cause the applicant.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent number 6,779,146 to Jones et al in view of U.S. patent number 6,628,641 to Strawczynski et al and U.S. patent application number 20010008520 to Tiedemann JR et al.

With regard to claim 1, Jones et al teach, in an OFDM system, having a base station transmit information to a receiver, wherein the receiver “buffers up received data to allow time for “gaps” in this data to be filled with good re-transmitted data before the data exits the receiver memory” (col 2, lines 10+). In col 3, lines 13+, it is stated that soft estimates are made of the received symbols. Jones et al also teaches resending (ie, retransmitting) the data if it was not properly sent the first time in col 1 lines 63+. Jones further teaches that a record of the received “codewords” is kept at the receiver “to allow codeword *retransmissions* to replace holes left by initially bad codeword reception” (col 4 lines 12+. The examiner notes that this is strongly suggestive of the process of soft-combining).

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Jones et al does not, however, teach:

- 1) Determining if the address of each packet can be correctly determined and subsequently determining if it is an address of an intended recipient.
- 2) Storing a symbol at the receiver and performing soft – combining of the retransmitted symbol with the stored symbol.

Strawczynski et al teaches the well known process of using a header error check code to determine if the header, including address information, is corrupt before sending the packet to its target address.

Tiedemann Jr et al teaches that in a system *such as* CDMA (par 32), reliability in a wireless system can be improved by soft – combining a retransmitted symbol with the originally transmitted packet. See paragraph 57.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have determined if the address of the packet in Jones is correct in light of the teachings of Strawczynski et al, and to have further soft – combined the stored packets in the receiver of Jones et al/Strawczynski with the retransmitted packets, on a symbol by symbol basis, in light of the teaching of Tiedemann Jr et al, in order to improve the reliability of the transmission system in Jones.

With regard to claim 2, note the RR field in col 4, lines 23 of Jones et al.

With regard to claim 3, identifying transmission values numerically is taught in par 56, third line from the bottom, and it would have been obvious that in order to process the data in the manner taught in Jones and strawczynski et al, both the symbol and packets would need to be numbered.

With regard to claim 4, encoding/decoding is taught in col 5 lines 60+ of Strawczynski et al, and figure 1B of Jones (member 154).

With regard to claims 5 – 12, see the discussion above and note that all of the limitations with respect to the receiver are discussed. Further, with respect to claim 12, coded OFDM is an obvious variation of OFDM.

4. Claims 13 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent number 6,779,146 to Jones et al in view of U.S. patent application number 20010008520 to Tiedemann JR et al.

Jones et al teaches the invention as described above, but does not teach soft combining. This is taught in Tiedemann Jr et al as described above, wherein it would have been obvious to one of ordinary skill in the art at the time of the invention to have soft combined the retransmissions in Jones in light of the teachings of Tiedemann in order to increase the reliability of the transmission.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent number 6,779,146 to Jones et al in view of U.S. patent 6,628,641 to Strawczynski et al.

Jones et al teaches the invention as described above, but does not teach determining if the address is correctly received. This is taught in Strawczynski et al, as described above. Note that checking the data portion for error is inherent in the teachings of col 5, lines 55+ of Jones et al. It would have been obvious to one of ordinary skill in the art at the time of the invention to have checked the address of Jones

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et al in light of the teachings of Strawczynski et al in order to increase reliability of the transmission.

6. Claims 16 – 27 and 29 are allowed.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Blount whose telephone number is 571 - 272 - 3071. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chau Nguyen, can be reached on 571 – 272 - 3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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6/17/05

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